



US005602377A

United States Patent [19][11] **Patent Number:** **5,602,377****Beller et al.**[45] **Date of Patent:** **Feb. 11, 1997****[54] BAR CODE DATAFORM SCANNING AND LABELING APPARATUS AND METHOD****[75] Inventors:** William E. Beller, Akron, Ohio;
Ynjiun P. Wang, Fort Myers, Fla.**[73] Assignee:** Metanetics Corporation, Fort Meyers, Fla.**[21] Appl. No.:** 396,519**[22] Filed:** Mar. 1, 1995**[51] Int. Cl.⁶** G06K 7/10**[52] U.S. Cl.** 235/462; 235/432; 235/385;
235/472**[58] Field of Search** 235/432, 385,
235/462, 472**[56] References Cited****U.S. PATENT DOCUMENTS**

D. 309,295	7/1990	da la Huerga et al. .	
4,377,741	3/1983	Brekka et al.	235/472
4,387,297	6/1983	Swartz et al. .	
4,440,248	4/1984	Teraoka	235/462 X
4,460,120	7/1984	Shepard et al. .	
4,593,186	6/1986	Swartz et al. .	
4,652,317	3/1987	Seestrom	156/64
4,660,221	4/1987	Dlugos .	
4,706,095	11/1987	Ono et al.	235/385 X
4,706,096	11/1987	Sato	235/385 X
4,734,710	3/1988	Sato et al.	235/385 X
4,734,713	3/1988	Sato et al.	235/385 X
4,746,932	5/1988	Sato	235/432 X
4,758,717	7/1988	Shepard et al. .	
4,794,239	12/1988	Allais .	
4,835,713	5/1989	Pastor .	

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

467015	1/1992	European Pat. Off. .
61-140825	6/1986	Japan .
6263131	9/1994	Japan .

OTHER PUBLICATIONS

Telxon Corporation brochure entitled "PTC-1140 Wireless Pen-Based Computer" dated Jan. 1994.

Telxon Corporation brochure entitled "PTC-1180 Wireless Pen-Based Computer Tablet", dated Jan. 1994.

Telxon Corporation brochure entitled "The Wireless Hospital-Time and Cost Saving Solutions for Healthcare Information Networks", copyright 1994.

Magazine article from *Automatic I.D. News* entitled "Pen-Based System to the Rescue: Speeds Fire Inspections and More," p. 21, dated Apr. 1994.Advertisement in *Automatic I.D. News* magazine for Monarch Marking Systems, Thermal Transfer Renegade printer, p. 22, dated Apr. 1994.

Monicor Electronic Corp. brochure for monicor model IC-100 Radio modem entitled "Monicor Snap-On Radio Modem for Mars Electronics MEQ™ Terminals," undated. Article entitled "A Primer for Two Dimensional Bar Codes, Portable Data Files, And PDF417" by Symbol Technologies, Inc. Bohemia, NY, dated Oct., 1990.

Primary Examiner—Donald T. Hajec**Assistant Examiner**—Jeffrey R. Filipek**Attorney, Agent, or Firm**—Watts, Hoffmann, Fisher & Heinke Co., L.P.A.**[57] ABSTRACT**

A bar code scanning and labeling apparatus for scanning and decoding a bar code associated with a product and generating a two dimensional bar code dataform incorporating selected data including at least a portion of the decoded, product related data from the product's bar code and additional data related to the product is disclosed. The apparatus includes a microprocessor having data selection circuitry adapted to retrieve the selected data and to assemble the retrieved selected into a format suitable for encoding. A method of providing a modified bar code dataform using the apparatus is also disclosed. The steps of the method include: scanning and decoding a product's bar code dataform; selecting data to comprise the modified bar code dataform, the selected data including decoded data relating to the product from the product's bar code dataform and additional data related to the product; and utilizing the selected data to produce the modified bar code dataform.

26 Claims, 5 Drawing Sheets